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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,928	12/30/2003	Yoon Kwan Lee	2080-3-207	1876

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EXAMINER

XU, LING X

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,928

Applicant(s)

LEE, YOON KWAN

Examiner

Ling X. Xu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 1 and 2A-2B should be labeled as --Prior Art -- instead of "Related Art" to be consistent with guideline set forth in MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 14 is objected to because of the following informalities: line 3, the "material)" should be -- material--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-23, it is unclear if the claimed subject matter is the composition which comprising 1) the ferroelectric transparent ceramics material, 2) the plasma display panel

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comprising dielectric layers and ferroelectric transparent ceramics, 3) the dielectric layer, or 4) the ferroelectric transparent ceramics thin film. The scopes of the claims are unclear.

Claims 1-13 will be interpreted that the claimed subject matter is the composition of the ferroelectric transparent ceramics material. Claims 14-23 will be interpreted as that the claimed subject matter is the PDP comprising the ferroelectric transparent ceramics material.

In claims 3 and 18, there is insufficient antecedent basis for the limitation of “the ferroelectric transparent ceramics powder” and the “parent glass powder” in the claim.

Similarly, in claims 4, 7, there is insufficient antecedent basis for the limitation of “the surface of the lower dielectric layer” and the “lower dielectric layer of the PDP” in the claim.

In claims 4 and 19, the term “thousands of Å” is unclear. It is unclear if the range should be between 1000 and 10,000 Å.

In claims 6 and 20, there is insufficient antecedent basis for the limitation of the “parent glass powder” in the claim.

In claims 7 and 21, the term “scores of Å-hundreds of Å” is unclear. It is unclear if the range should be between 1 to 100Å.

In claims 9 and 22, there is insufficient antecedent basis for the limitation of the “the phosphor layer”, “ferroelectric transparent ceramics powder” and “the phosphor powder” in the claim.

In claim 10, there is insufficient antecedent basis for the limitation of the “the ferroelectric transparent ceramics thin film” and the “surface of the phosphor layer” in the claim.

In claim 23, there is insufficient antecedent basis for the limitation of the “the surface of the phosphor layer” in the claim.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-2, 5 and 12-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 and 20-26 of U.S. Patent No. 6,605,834. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims in the US ('834) recite the ferroelectric materials used in the Plasma display panel. Some of the ferroelectric materials are the same material as the ferroelectric transparent ceramics as recited in the claims of present application, see claim 3 of the US ('834).

5. Claims 1-3, 5 and 12-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,514,891. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims in the US ('891) recites a dielectric composition comprising the binary

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compound and a ternary compound of the ferroelectric transparent ceramics material, which is the same material as recited in the claims of present application.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 10 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Masaru et al (GB-2023567).

With respect to claims 1-2, 10 and 12-13, Masaru discloses a transparent ferroelectric ceramic material (page 2, lines 1-30). The thickness of the layer is about 200 um (page 3, lines 30-50), which the thickness is considered to be in thousands of Å.

The recitations of “a plasma display panel”, “ a dielectric of the PDP”, “ an upper dielectric layer of the PDP” or “the surface of the phosphor layer of the PDP” do not provide patentable distinction on the structure of the claimed composition because the claimed composition does not include these structures.

Since Masaru discloses the same ferroelectric transparent ceramics material as claimed, the same material would also have the same properties such as dielectric property, visible ray transmittance and electric permittivity as claimed.

With respect to claims 3-5, Masaru discloses the material can be formed a layer and the ferroelectric transparent ceramics composition having 1-20 wt% of to the parent glass powder, see Table 1 on page 2.

7. Claims 1-2, 4-7 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Auciello et al. (US 5,453, 661).

With respect to claims 1-2, 4-5 and 10-11, Auciello the ferroelectric thin film of 2 um or less in thickness (abstract). The ferroelectric materials used in Auciello are the same ferroelectric materials as claimed in the present application (col. 7, lines 45-60). The ferroelectric thin film is formed on the surface of the phosphor layer (col. 2, lines 50-67).

The recitations of “a plasma display panel”, “ a dielectric of the PDP”, “ an upper dielectric layer of the PDP” or “the surface of the phosphor layer of the PDP” do not provide patentable distinction on the structure of the claimed composition because the claimed composition does not include these structures.

Since Auciello discloses the same ferroelectric transparent ceramics material as claimed, the same material would also have the same properties such as dielectric property, visible ray transmittance and electric permittivity as claimed.

With respect to claims 6-7 and 13, Auciello discloses the same ferroelectric material as claimed in the present application (col. 7, lines 45-60) and the ferroelectric thin film is less than 2 um (abstract).

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8. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Satoh et al. (US 5,75,061).

Satoh discloses a ferroelectric thin film formed of SrTiO_3 or BaTiO_3 (col. 11, lines 15-30), which is the same ferroelectric transparent ceramics material as claimed in the present application. The ferroelectric thin film has a thickness of less than 300nm (col. 12, lines 25-40). Accordingly, Satoh discloses the claimed composition.

9. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Karam et al (US 5,309,071).

Karam discloses a composition of the mixture of the phosphor and a ferroelectric material such as BaTiO_3 (abstract and col. 4, lines 50-67). The BaTiO_3 is one of the transparent ferroelectric ceramics materials used in the present application. Accordingly, Karam discloses the claimed composition.

Allowable Subject Matter

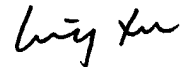
10. Claims 9 and 14-23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling X. Xu whose telephone number is 571-272-1546. The examiner can normally be reached on 8:00 - 4:30 Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah D. Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ling X. Xu
Examiner
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